



## **Memorandum**

*To: Rick Sun, Los Angeles County Department of Public Works*

*From: Matt Petty, CDM Smith*

*Date: June 1, 2015*

*Subject: Final Daily Biological Monitoring for the Oxford Retention Basin Multiuse Enhancement Project*

## **Introduction**

This memorandum summarizes the findings of biological monitoring on June 1, 2015. Monitoring is being conducted on a daily basis through completion of construction activities for the Oxford Retention Basin Multiuse Enhancement project. This monitoring is being conducted in compliance with the Streambed Alteration Agreement and Amendment issued by the California Department of Fish and Wildlife for the project.

## **Methods**

Biological monitoring was conducted by Matt Petty, CDM Smith biologist on June 1, 2015, beginning at 7:15 am and ending at 4:00 p.m. During the monitoring, the biologist observed herbaceous vegetation removal (i.e. "weed-whacking") activities as they were conducted in the project area. The biologist also observed installation of chain-link fence in the west parking lot (Parking Lot No. 8). Daily activities consisted of cutting herbaceous vegetation flush with the ground using gas-powered weed-whackers along Admiralty Way on the southern side of the Basin. However, not all vegetation was removed, as plants taller than 24" in height and plants along the shoreline at the toe of slope were left standing. Installation of the fence in Parking Lot No. 8 included the staging and erecting of chain-link fence and privacy screen. The fenced-off area will house the construction trailer and will serve as a parking and staging area.

The following sections provide the biologist's field log notes, with observations of the day's activities and wildlife presence and behavior.

## **Biologist's Field Log**

7:00 am. Biologist arrived at Oxford Basin (site) and prepared and organized field equipment for initial biological survey.

7:15 am. The Biologist begins the initial biological survey of the site. Three American crows, one black-crowned night heron, and one black phoebe are observed along the southeast channel near the pump house. The water in the Basin appears low. Algal growth is observed throughout the

Basin. Two European starlings, one Anna's hummingbird, and two mourning doves are observed along the north fence. At the stormwater inlet, one great blue heron, one black phoebe, and two house finches are observed, as a western gull flies over. Small flocks of European starlings and house finches are active in the palms that line Washington Boulevard to the north of the project site. Along the north shore and the mudflats, one song sparrow, two gadwall, and two killdeer are observed, as one rock pigeon flies over. The Biologist removes the orange tape installed during the May 31, 2015, pre-construction survey cordoning off the failed gadwall nest. The pair of killdeer exhibit some site fidelity on the north mudflats, but an investigation does not turn up a nest or eggs.

**In the western portion of the Basin, a California least tern is observed repeatedly hovering and diving for fish. The California least tern is federally-listed as Endangered. The tern would repeatedly circle the central and western Basin, hover, and then dive into the water to forage for fish. Tern visits generally last for no more than 10 minutes, with the tern exiting the site to the west. When on site, the tern never came to within 1,000 feet of work activities and never appeared disturbed by activities within the Basin. If the tern had approached work activities, all work would be stopped.**

In the southwest corner of the Basin near the tide gates, three black-crowned night herons are observed perching on the tide gate structure. Two mallards fly in and land in the west basin. Two Anna's hummingbirds are observed in the large pine next to the tide gate. This tree has repeatedly been investigated for hummingbird nests, and the results of today's investigation are like the others – no nests are observed. Two barn swallows fly over the western Basin, and a California ground squirrel (*Spermophilus beecheyi*) is observed actively excavating a burrow entrance in the southwest corner of the site. Burrows are observed along the north, south, and west shores of the site, with the highest densities in the southwest corner. Along the south shore of the Basin, a small flock of six house finches, one bushtit, one immature black-crowned night heron, two mourning doves, and one black phoebe are observed.

The initial wildlife survey is completed at 8:05 a.m.

8:15 am. Significant insect activity is observed both in and above the water. Dragonflies are particularly active. A lesser goldfinch is observed in the northeast corner of the site. Two more mallards land in the western Basin. The American Fence Company arrives with fencing material at Parking Lot No. 8.

8:30 am. Two snowy egrets fly in – one lands in the southeast channel and the other lands on the north shore. A great blue heron catches multiple fish near the stormwater inlet.

8:40 am. Contractor personnel arrive and Bio-awareness Training is given to the five staff that will be working on-site today. Contractor translates into Spanish. All five participants sign the sign-in sheet acknowledging they understand the Training. Contractor goes over the work plan for the day and indicates that work will include vegetation removal with handheld weed-whackers. A chain-

link fence will also be installed around Parking Lot No. 8, but this work will occur outside project boundaries. Because of the nature of the work, the Biologist emphasizes that crews should be on the lookout for brush-loving birds that had been observed that morning (e.g. black phoebe, house finch) and ground squirrels. Crews are told to stop work immediately if any wildlife come within the work area.

9:00 am. Training is completed. American Fence Company begin unloading fencing materials in Parking Lot No. 8. No wildlife is impacted. American crow, rock pigeon, European starling, and mourning dove fly over without hesitation.

9:15 am. Biologist meets with Construction Monitors. Biomonitoring and the Bio-awareness Training are explained to them.

9:30 am. Weed-whacking begins along on the south bank along the Admiralty Way fence. Crews begin on the bank directly opposite the stormwater inlet. A group of four house finches foraging in the vegetation approximately 20 feet away from the work are undisturbed and slowly move away. Two Anna's hummingbirds in the large pine tree near the tide gate harass an immature black-crowned night heron that is perching in the tree. Two mourning doves and two northern rough-winged swallows fly over the work and are unaffected. The weed-whacking is kicking up quite a few insects.

9:50 am. One killdeer flies over to investigate the work and immediately flies back to the north mudflats. A great blue heron retreats up the north bank, where it will remain resting in the vegetation for the remainder of the day. A red-tailed hawk is seen soaring high far off to the east of the site. The installation of the chain-link fence in Parking Lot No. 8 begins. Three mallard land in the west Basin and an American crow flies over. No wildlife is disturbed.

10:15 am. Vegetation clearing continues as the crews move toward the east. Cutting occurs from the fence (top of bank) down to the fiber coils (E&S control). The crews are clearing approximately 3,000 ft<sup>2</sup> per hour. Two immature western gulls fly high over the Basin. Wildlife is largely staying approximately 500 feet from the work area, but exhibit no signs of stress or altered behavior. Winds begin to pick up and coincides with a noticeable drop in observed wildlife activity.

10:40 am. Two American crows land on a portion of the newly installed chain-link fence at Parking Lot No. 8, approximately 200 feet from the active installation. The crows preen and call, and appear undisturbed. The only wildlife in the vicinity of the weed-whacking crew are rock pigeons squabbling around high rises across Admiralty Way. The weed-whacking stops for ten minutes to refuel, and a house sparrow and Anna's hummingbird fly in to investigate; they quickly fly off. A second great blue heron flies over the eastern Basin and up over the high rises. Heavy jackhammering begins on the other side of Washington Boulevard. Four European starlings and two American crows from nearby palm trees fly over the Basin.

11:00 am. Brush clearing continues along the southeast channel and is leaving plants >24" tall. Remodeling of several high rise apartments off-site, not a part of this project, particularly the loud jigsaw, causes three rock pigeons to take flight. A black phoebe perches in the southeast channel near the work area. Two northern rough-winged swallows fly along the Bike Path, and a flock of six American crows circle the eastern Basin. One yellow-breasted chat flies in and forages roughly 100 feet from the work area. It is quickly joined by two house finches, two bushtits, and one orange-crowned warbler. They forage until the crews get to within 20 feet before flying 50 feet ahead, and resume foraging.

11:15 am. Three crewmen at the pump house look at the electrical box and options for secondary power to the pumps. They all leave at 11:30 am. A snowy egret flies overhead and lands near the tide gates. A western tiger swallowtail (*Papilio rutulus*) butterfly flies along the opposite shoreline. Butterflies are extremely active today, with the most common being the cabbage white butterfly (*Pieris rapae*).

11:30 am. The vegetation removal stops. One monarch butterfly is seen flying along the southeast channel before leaving the site to the south at 11:50 am. A second monarch is encountered near the southeast gate, and leaves the site towards Yvonne Burke Park at 11:55 am. These are two of the three monarchs seen today. None go close to the eucalyptus trees where roosting was documented in January 2015.

12:00 pm. Work stops as the crews and the Biologist take lunch. The fence in Parking Lot No. 8 is completely installed. The California least tern returns and forages for fish intermittently over a 30-minute period before leaving the site to the southwest.

1:00 pm. Vegetation removal via weed-whacker resumes at the tide gates. Two mallards on-shore under the nearby pine trees are unaffected even though the work area comes within 20 feet of their location. Two house finches perch in the large pine tree next to the tide gates. A snowy egret preens on the west bank, approximately 200 feet from the work area. A stingray, crab, and hundreds of small fish are seen congregating at the tide gates.

1:15 pm. An Anna's hummingbird in the large pine tree next to the tide gates exhibits a stress response (i.e. fleeing and alarm call) as workers approach. Work is temporarily halted. The hummingbird returns and perches in a nearby pine – eventually returning to the original pine once workers have moved on. Two house finches are also in the pine trees overlooking the work area, but exhibit no stress response. Fence installation crews arrive with green privacy screening and begin installing it on the recently installed fence. Two mourning doves perch on the fence approximately 30 feet from the active work area, but are unaffected.

1:30 pm. A snowy egret perches on the tide gates, approximately 75 feet from active vegetation removal, but continues to forage. A second snowy egret and a black-crowned night heron fly over the western Basin – the egret lands on the north mudflats and the heron leaves the site. Three

house finches are squabbling in the grape vines on the west perimeter fence, and two American crows fly over the Basin.

2:00 pm. A monarch is observed flying over the western Basin. Crews begin to remove vegetation below the fiber coils (E&S control), but leave vegetation along the water's edge.

2:10 pm. A drone (quadcopter) hovers approximately 100-feet above the vegetation removal. It remains in the project area for five minutes before flying away to the north. The Biologist looks for the operator but one is not identified. Mourning dove, western gull, and American crow flyovers are frequently observed.

3:00 pm. Relatively little wildlife activity is observed around the vegetation removal work area. The breeze has picked up significantly. Vegetation removal continues along the south bank towards the east. Two swallows fly over; none of the swallows observed appear to show affinity to any of the concrete structures on-site. The western Basin is relatively algae free, but the eastern two-thirds of the Basin both attached/filamentous and floating algae is observed. Three stingrays and hundreds of small fish congregate at the leak in the tide gates. The fence installation crew have finished and are leaving the site.

3:30 pm. The vegetation removal crew stops work for the day.

4:00 pm. All personnel leave the project site.

Weather conditions throughout the day were sunny and breezy with temperatures in the low 70s (°F).

## **Additional Observations**

Throughout the day, the biologist observed several birds, as listed in Table 1. As described previously, three monarch butterflies were also observed. Additional butterflies and dragonflies were observed, as described above. A California ground squirrel was observed during the initial morning survey, and burrows are common throughout the western two-thirds of the site. Three stingrays, measuring about 12" in diameter were observed congregating at the closed tide gates, along with hundreds of small fish and a crab. SWCA, fisheries biologists for the future fish relocation will be notified of the presence of stingrays.

A single California least tern was observed on-site, on two separate occasions. The tern would repeatedly circle the western Basin, hover, and then dive into the water to forage for fish. All tern activity occurred during periods when work was not occurring on site. If the tern had approached work activities, all work would be stopped. The tern spent did not appear disturbed by people walking the periphery of the Basin. CDM Smith is contacting CDFW, on behalf of LACDPW, for additional guidance on how to avoid disturbing the tern if and when it returns to the project site.

No active bird nests were observed inside the project boundary.

Table 1 provides a list of bird species observed during biological monitoring on June 1, 2015.

<b>Table 1. Bird Species Observed during Biological Monitoring on June 1, 2015</b>		
<b>Common Name</b>	<b>Scientific Name</b>	<b>Comments</b>
Gadwall	<i>Anas strepera</i>	2 individuals foraging in Basin
Mallard	<i>Anas platyrhynchos</i>	5-6 individuals foraging along northern shore
Snowy Egret	<i>Egretta thula</i>	2-3 individuals resting/foraging in Basin
Great Blue Heron	<i>Ardea herodias</i>	2 individuals resting/foraging of the Basin
Black-crowned Night Heron	<i>Nycticorax nycticorax</i>	5-6, including adults and juveniles, foraging and resting in Basin
Killdeer	<i>Charadrius vociferous</i>	2 individuals observed along mudflats on north shore of Basin
Western Gull	<i>Larus occidentalis</i>	Very common; several flyovers of the Basin
California Least Tern	<i>Sternula antillarum browni</i>	1 individual foraging in the west Basin
Red-tailed Hawk	<i>Buteo jamaicensis</i>	1 individual flying far to the east of the Basin
Anna's Hummingbird	<i>Calypte anna</i>	5-6 individuals observed around Basin
Black Phoebe	<i>Sayornis nigricans</i>	4-5 individuals foraging around Basin
American Crow	<i>Corvus brachyrhynchos</i>	Several observed in vegetation, on utility poles, and flying over Basin.
Lesser Goldfinch	<i>Carduelis psaltria</i>	2 individuals observed along southeast and northeast shores of the Basin
Orange-crowned warbler	<i>Vermivora celata</i>	1 observed in eastern portion of Basin
Yellow-breasted Chat	<i>Icteria verins</i>	1 observed in southeast portion of Basin
Bushtit	<i>Psaltiriparus minimus</i>	2 individuals seen along the southeast shore of Basin
House Finch	<i>Haemorhous mexicanus</i>	Very common; several observed in vegetation in throughout the Basin
House Sparrow	<i>Passer domesticus</i>	1 individual observed along south shore of Basin
Rock Pigeon	<i>Columba livia</i>	Several observed flying over Basin, particularly in western portion and around high-rises south of Admiralty Way
Mourning Dove	<i>Zenaida macroura</i>	Several observed, particularly on power lines in the northern and western portions of the basin
Northern Rough-winged Swallow	<i>Stelgidopteryx serripennis</i>	Several observed flying over Basin; most common in residential area to east of Basin
Barn Swallow	<i>Hirundo rustica</i>	2 observed flying over the western Basin
European Starling	<i>Sturnus vulgaris</i>	Several observed in the tall palms north of the site along Washington Blvd

## Conclusions

Biological monitoring was conducted on June 1, 2015, during vegetation removal and fence installation activities at the site. Based on observations made during monitoring, the following conclusions were made:

1. Several bird species are present, foraging around the Basin. No active nests were observed. As the Basin transitions from a closed canopy to an open system, a larger number species that favor open, scrub habitats are being observed. The greatest songbird density is located near the bike path along the eastern fence of the site.
2. A pair of killdeer are showing site fidelity to the north mudflats. Several extensive searches of the mudflats and adjacent areas have been conducted and no nests or eggs have been found. During the searches, the characteristic "broken-wing" display that nesting killdeer employ around potential dangers is not observed. Breeding pairs of killdeer are known to stay together long after young have fledged, and in some cases, year-round, so the observed behavior is not atypical. However, killdeer in southern states have been known to raise two broods, so the Biologist will continue to monitor the adults and look for nests, eggs, and breeding behaviors.
3. Three monarchs were observed at the site. The number of monarchs, as compared to surveys earlier in the year, are much lower. There was no "take" of monarchs during vegetation removal activities conducted at the site.
4. Wildlife tend to slowly move away from an area when crews approach to conduct vegetation removal and fence installation activities. They return to the area once the crews move on.
5. Significant algal blooms were observed at the site.
6. Large numbers of fish and three stingrays are observed congregating at the tide gates. They appear to congregate most around the leak in the easternmost gate.
7. The presence of stingrays needs to be relayed to future fish relocation crews.
8. The presence of an endangered species – the California least tern – on-site requires that California Department of Fish and Wildlife and U.S. Fish and Wildlife Service be consulted. CDM Smith is contacting the agencies, on behalf of LACDPW, as appropriate, for guidance. At this time, work will be stopped if the tern comes within 500 feet of active work areas.



## **Memorandum**

*To: Rick Sun, Los Angeles County Department of Public Works*

*From: Matt Petty, CDM Smith*

*Date: June 2, 2015*

*Subject: Final Daily Biological Monitoring for the Oxford Retention Basin Multiuse Enhancement Project*

## **Introduction**

This memorandum summarizes the findings of biological monitoring on June 2, 2015. Monitoring is being conducted on a daily basis through completion of construction activities for the Oxford Retention Basin Multiuse Enhancement project. This monitoring is being conducted in compliance with the Streambed Alteration Agreement and Amendment issued by the California Department of Fish and Wildlife for the project.

## **Methods**

Biological monitoring was conducted by Matt Petty, CDM Smith biologist on June 2, 2015, beginning at 7:15 am and ending at 3:00 p.m. During the monitoring, the biologist observed herbaceous vegetation removal (i.e. "weed-whacking") activities as they were conducted in the project area. The biologist also observed installation of the temporary construction trailer in the west parking lot (Parking Lot No. 8). Daily activities consisted of cutting herbaceous vegetation flush with the ground using gas-powered weed-whackers along Admiralty Way on the southern side of the Basin and parallel to the bike path on the eastern side of the Basin. However, not all vegetation was removed, as plants taller than 24" in height and plants along the shoreline at the toe of slope were left standing. Installation of the construction trailer involved unloading from the transport truck and positioning the trailer within the fenced-off portion of Parking Lot No. 8.

The following sections provide the biologist's field log notes, with observations of the day's activities and wildlife presence and behavior.

## **Biologist's Field Log**

7:15 am. Biologist arrived at Oxford Basin (site) and prepared and organized field equipment for initial biological survey. Contractor arrives at the same time and the construction trailer, hauled by installer who arrives minutes later. The truck hauling the construction trailer enters the newly fenced-off portion of Parking Lot No. 8, which will serve as the construction office and lot.



7:20 am. The Biologist gets assurances that work will not begin until 8:00 am and meets with the diver conducting the tide gate inspection. The Biologist goes over the Bio-awareness Training and tailors it towards the protection of aquatic species and their habitats. The Biologist also informs the diver that stingrays have been observed at the tide gates, and the two go over Health and Safety protocols.

7:30 am. The Biologist begins the initial biological survey of the site. The California least tern is observed fishing within the western Basin. It flies off to the west with a mouth full of fish at 7:35 am, and returns at 7:50 am to fish once more before leaving the site at 7:50 am. One black-crowned night heron is perched on the tide gate and several birds are observed flying over the western basin including three barn swallows, one European starling, and one western gull. A flock of four American crows are perched in the palm trees along Washington Boulevard, and two house finches are in the grape vines along the western project fence. Along the north shore, two northern rough-winged swallows fly along the fence; two killdeer are present on the mudflats; one Anna's hummingbird is perched on the north fence; two mourning doves are perched on the power lines; and two European starlings are perched on a power pole.

The killdeer do not display the characteristic "broken-wing" act to lead the Biologist away from a potential nest; however, they do the "cattle display", which is often used to keep cattle from stepping on eggs. The killdeer puff themselves up, display their tails over their heads, and occasionally mock charge. This convinces the Biologist that a nest is nearby, and after two days of searching, a nest is found at the toe of slope where the northwest peninsula meets the Basin shoreline. The nest is but a small scrape in the surrounding gravel, with the four eggs perfectly camouflaged with the surrounding pebbles. One of the eggs sits 6" apart from the other three, which rest against one another. The Biologist immediately cordons off a 50-foot buffer on either side of the nest with orange tape, as this distance is that at which the adults begin displaying.

Continuing on the initial survey, the Biologist observes one black phoebe in the northeast corner of the site, and one northern mockingbird, eight house finches, and one yellow warbler are observed along the bike path. Several birds, including nine house finches, one lesser goldfinch, and one bushtit are observed on the south shore. Three pigeons are observed on high rises across Admiralty Way, and American crows and western gulls frequently fly over the eastern Basin. Upon reaching the cleared area from the previous day, the Biologist flushes several pairs of mourning doves. All the potential and inactive nests identified from the pre-construction bird survey are investigated and no activity is observed.

8:05 am. Upon completing the initial wildlife survey, the Biologist conducts Bio-awareness Training with Contractor personnel. Emphasis is placed on the presence of the California least tern and the killdeer nest exclusion zone. Contractor translates and all three personnel sign the sign-in sheet acknowledging they understand the Training. Contractor goes over the work plan for the day and indicates that work will include vegetation removal with handheld weed-whackers. In addition, installation of the construction trailer in Parking Lot 8 will take 2-3 hours. Because of the nature of

the work, the Biologist emphasizes that crews should be on the lookout for brush-loving birds that had been observed that morning (e.g. black phoebe, house finch) and ground squirrels. Crews are told to stop work immediately if any wildlife come within the work area.

8:15 am. Vegetation removal with handheld weed-whackers begins on the south bank. A yellow-breasted chat conducts a hovering display over the central Basin. A single male mallard flies over the Basin, and one bushtit and one Anna's hummingbird perch on the eastern fence. Two gadwall fly over and head toward Yvonne Burke Park. Waterfowl will be largely absent from the Basin for the remainder of the day. Contractor and the diver head over to inspect and measure the tide gates on the marina side.

8:30 am. An immature black-crowned night heron lands in the southeast channel. Wading birds are largely absent in the Basin to this point, and the great blue heron that has been in the Basin the last two days is nowhere to be seen. There is an increase in barn swallow activity, compared to the day before, particularly in the western and central Basin.

8:45 am. The Biologist conducts the Bio-awareness Training for the worker who is installing the construction trailer. He was not at the original Training because he was maneuvering the truck and trailer into place. The trailer install is limited to the parking lot; therefore, the Training's focus is on gulls, starlings, rock pigeons, and other species that may wander into the area, and the endangered California least tern. Contractor and the diver return from inspecting the tide gates at the marina.

9:00 am. A group of five house finches land in a pine tree on the south shore, approximately 300 feet from vegetation clearing activities. They show no signs of being disturbed. Two barn swallows fly over the work area and a flock of six European starlings fly along the north fence. Also observed are two mallards in the western Basin. As the crews finish vegetation removal on the south shore and move to the southeast channel, a dark-eyed junco is observed on the east bank. The County inspector, arrives on-site.

9:05 am. The California least tern flies into the project site, makes one dive in the central Basin, catches a fish, and flies off-site to the west. This is relatively typical behavior for the tern on-site – visits generally last less than 10 minutes and consist of fishing (hovering then diving) and circling the western and central Basin. The Biologist discusses the results of the tide gate investigation with the Contractor and the diver. The decision has been made to only plug the marina side of the tide gates. Contractor hopes to plug the gates by next week, but the schedule hinges on obtaining requisite permits and regulatory approval of the surface water diversion plan (still under agency review).

9:45 am. The diver leaves the site, and vegetation clearing continues along the southeast channel. Four house finches, one lesser goldfinch, and a black phoebe forage ahead of the clearing, always managing to stay about 30 feet ahead of the work area. Two mourning doves land in the recently cleared area, approximately 100 feet from the active work area. Several American crow and

swallow flyovers are observed. Most of the swallows are barn swallows, with sightings of northern rough-winged swallows largely limited to the east fence and the southeast corner of the site. In comparison to the previous day, significantly more flow coming into the Basin from the leak in the easternmost tide gate is observed.

10:15 am. Two Anna's hummingbirds are showing site fidelity to a large eucalyptus on the other side of the bike path, approximately 100 feet northeast of the pump house. They chase a mourning dove away from the tree. The Biologist surveys the tree and observes the hummingbirds, but no nest is discovered. Two tiger swallowtail butterflies and one cabbage white butterfly are observed along the southeast channel. One black phoebe perches on the pump house railing.

10:45 am. It appears that wildlife activity is slowing dramatically as the morning progresses. While activity within the Basin slows, flyovers are still common with two American crows, two mourning doves, two house finches, and three barn swallows flying across the Basin. Four rock pigeons are observed on the high rises across Admiralty Way and four house finches are observed in the palms at Marina City Drive. An estimated 50 small fish are observed congregating at the gates at the end of the southeast channel.

11:15 am. Four house finches are observed foraging on the recently-cleared banks. One lesser goldfinch perches on the south fence, and one monarch butterfly flies along the south shoreline. Swallows are still very common, with barn swallows flying out over the Basin and northern rough-winged swallows flying over the southeast channel and east fence.

11:45 am. Work stops as the crews and the Biologist break for lunch. The Biologist detours to observe the killdeer nest – no brooding, but the adults stay close to the eggs. A mourning dove rests on the ground approximately 5 feet from the eggs, but the killdeer do not appear phased. A snowy egret is perched on the tide gates.

1:00 pm. After speaking with the CDM Smith Project Manager, who has reviewed the permits and has reached out to CDFW, the Biologist informs Contractor that no work shall be conducted on the north shore (300-foot killdeer nesting buffer) until CDFW provides additional guidance regarding work activities in the vicinity of the nest. Vegetation removal with weed-whackers resumes around the pump house. One black phoebe perches near the pump house, two house finches fly about the southeast channel, and two American crows fly over the work area. Additionally, one northern mockingbird and one Anna's hummingbird fly along the east fence, and one northern rough-winged swallow flies over the southeast corner of the site. Several barn swallows and a western gull fly around the central Basin. No wildlife is disturbed by work activities. Vegetation clearing continues to the east. Clearing on the east bank is only conducted below the straw wattles (E&S control).

1:30 pm. One monarch butterfly and several cabbage white butterflies are observed flying along the southeast channel. Three snowy egrets and two mallards are observed foraging along the southern shoreline. One killdeer is seen brooding the eggs (first observation). The Biologist flags a 300-foot

buffer around the nest with orange tape. A song sparrow is flushed while cordoning-off the killdeer nest.

1:50 pm. The California least tern arrives and circles the western and central Basin. It dives several times before leaving to the west at 1:57 pm.

2:20 pm. Vegetation clearing ends around the stormwater inlet in the northeast corner of the site. The crew has reached the eastern limit of the 300-foot killdeer nesting buffer. The entire east and south banks have been cleared except for plants that are >24" tall and a shoreline buffer. On the east bank, clearing has only occurred below the straw wattles (E&S control).

As the crew cleared along the buffer boundary, the Biologist observed the killdeer for any reaction. No altered behavior, alarm calls, or displays were observed. This is likely due to the 10-foot high elevated northwest peninsula, which is one of two that jut out from the north shore into the Basin. The elevated northwest peninsula obstructs the work from view of the nest.

2:30 pm. All work on-site stops. One Allen's hummingbird is observed in the northeast corner of the site.

2:45 pm. Crews leave the site.

Weather conditions were mostly cloudy in the morning, transitioning to mostly sunny in the afternoon with temperatures in the mid to upper 70s (°F).

## **Additional Observations**

Throughout the day, the biologist observed several birds, as listed in Table 1. As described previously, two monarch butterflies were also observed. Additional butterflies and dragonflies were observed, as described above. While no California ground squirrels were observed, recent burrowing activity was noted on the western bank. Unlike yesterday, when three stingrays were observed, no stingrays were observed at the tide gates today.

**A single California least tern was observed on-site, on four separate occasions. The tern would repeatedly circle the central and western Basin, hover, and then dive into the water to forage for fish. Tern visits generally last for no more than 10 minutes, with the tern exiting the site to the west. When on site, the tern never came to within 1,000 feet of work activities and never appeared disturbed by activities within the Basin. If the tern had approached work activities, all work would be stopped.**

Due to observed adult killdeer behaviors, the Biologist was fairly certain a nest was located on the northern mudflats. However, killdeer nests are no more than scrapes on the ground, and killdeer eggs resemble pebbles. Killdeer rely on this camouflage to hide eggs from predators. The killdeer nest on-site contains four eggs, but one egg is set apart from the others by a distance of 6-inches or so. It is unknown if this egg is being brooded, along with the others, or was discarded for some reason.

Table 1 provides a list of bird species observed during biological monitoring on June 2, 2015.

<b>Table 1. Bird Species Observed during Biological Monitoring on June 2, 2015</b>		
<b>Common Name</b>	<b>Scientific Name</b>	<b>Comments</b>
Gadwall	<i>Anas strepera</i>	2 individuals flying over the Basin
Mallard	<i>Anas platyrhynchos</i>	2-3 individuals foraging along northern shore; several flyovers
Snowy Egret	<i>Egretta thula</i>	4-5 individuals resting/foraging in Basin
Black-crowned Night Heron	<i>Nycticorax nycticorax</i>	2-3, including adults and juveniles, foraging and resting in Basin
Killdeer	<i>Charadrius vociferous</i>	2 individuals observed nesting along mudflats on north shore of Basin
Western Gull	<i>Larus occidentalis</i>	Very common; several flyovers of the Basin
California Least Tern	<i>Sternula antillarum browni</i>	1 individual foraging in the west Basin
Anna's Hummingbird	<i>Calypte anna</i>	5-6 individuals observed around Basin
Allen's Hummingbird	<i>Selasphorus sasin</i>	1 individual seen in the northeast corner of the Basin
Black Phoebe	<i>Sayornis nigricans</i>	4-5 individuals foraging around Basin
American Crow	<i>Corvus brachyrhynchos</i>	Several observed in vegetation, on utility poles, and flying over Basin
Lesser Goldfinch	<i>Carduelis psaltria</i>	2 individuals observed along south and east shores of the Basin
Yellow-breasted Chat	<i>Icteria verins</i>	1 individual observed hovering over central Basin
Yellow Warbler	<i>Dendroica petechia</i>	1 individual observed along bike path
Bushtit	<i>Psaltiriparus minimus</i>	1 individual seen along the southeast shore of Basin
House Finch	<i>Haemorhous mexicanus</i>	Very common; several observed in vegetation in throughout the Basin
Song Sparrow	<i>Melospiza melodia</i>	1 individual observed along north shore of Basin
Dark-eyed Junco	<i>Junco hyemalis</i>	1 individual observed along the eastern bank
Rock Pigeon	<i>Columba livia</i>	Several observed flying over Basin, particularly in western portion and around high-rises south of Admiralty Way
Mourning Dove	<i>Zenaida macroura</i>	Several observed, particularly on power lines in the northern and western portions of the basin
Northern Rough-winged Swallow	<i>Stelgidopteryx serripennis</i>	Several observed flying over Basin; most common in residential area to east of Basin
Barn Swallow	<i>Hirundo rustica</i>	Very common; several observed flying over the western Basin
Northern Mockingbird	<i>Mimus polyglottos</i>	2 individuals seen along the eastern fence
European Starling	<i>Sturnus vulgaris</i>	Several observed along Washington Blvd

## Conclusions

Biological monitoring was conducted on June 2, 2015, during vegetation removal and construction trailer installation activities at the site. Based on observations made during monitoring, the following conclusions were made:

1. Several bird species are present, foraging around the Basin. As the Basin transitions from a closed canopy to an open system, a larger number species that favor open, scrub habitats are being observed. The greatest songbird density is located near the bike path along the eastern fence of the site.
2. A pair of killdeer are showing site fidelity to the north mudflats. The killdeer do not display the characteristic "broken-wing" act to lead the Biologist away from a potential nest; however, they do the "cattle display", which is often used to keep cattle from stepping on eggs. The killdeer puff themselves up, display their tails over their heads, and occasionally mock charge. This convinces the Biologist that a nest is nearby, and a nest is found at the toe of slope where the northwest elevated peninsula meets the Basin shoreline. The nest is but a small scrape in the surrounding gravel, with the four eggs perfectly camouflaged with the surrounding pebbles. One of the eggs sits 6" apart from the other three, which rest against one another. The Biologist immediately cordons off a 50-foot buffer on either side of the nest with orange tape, as this distance is that at which the adults begin displaying. That distance is extended to 300-feet from the nest to afford it more protection.
3. CDFW was contacted regarding the killdeer nest. They suggest that the nest buffer be greater than 50-feet to a distance in which the adults are not flushed off the nest. However, they understand that natural vegetation or topographic features may obstruct the nest from view and resulting noises and vibrations from construction activities. They also request a bird nesting management plan be prepared for the killdeer. The plan will describe actions that will be taken to avoid take of the nest, eggs, and young, until such time the young are no longer dependent on the nest. The CDM Smith Biologist observed that, when approaching the nest from the east along the mudflats, the killdeer can see a far ways off and are flushed at approximately 100 feet from the nest. However, when approaching the nest from the west, the northwest peninsula that extends into the Basin blocks the view from the nest until one is within 50 feet. This information, combined with a CDFW-approved killdeer nesting plan for another California project that calls for a 125 to 150-foot buffer, suggests that a 150-foot buffer would be appropriate to the west, north and south of the nest and a 50 foot buffer, to the crest of the northwest peninsula, is appropriate to the east of the nest. CDM Smith will prepare the bird nesting management plan and submit to CDFW for review and approval. Until the nesting management plan is approved, a 150-foot buffer will be placed around the killdeer nest in all directions.
4. Killdeer are among the most tolerant of birds when it comes to nesting amongst human development. Killdeer have been known to nest in residential backyards, cattle pastures, and gravel rooftops. Unlike many bird species, it is extremely rare for a killdeer pair to abandon a

nest. Killdeer eggs generally hatch 22-28 days after they are laid. Young killdeer hatch with their eyes open, and as soon as their downy feathers dry (generally 2-4 days), they leave the nest area and follow their parents about searching for food. Therefore, the nest buffer will likely remain in place for a maximum of 32 days.

5. Two monarchs were observed at the site. The number of monarchs, as compared to surveys earlier in the year, are much lower. There was no "take" of monarchs during vegetation removal activities conducted at the site.
6. Wildlife tend to slowly move away from an area when crews approach to conduct vegetation removal and fence installation activities. They return to the area once the crews move on.
7. Algal blooms were observed throughout the basin.
8. Large numbers of fish are observed congregating at the tide gates and southeast channel gate. They appear to congregate most around the leak in the easternmost tide gate. These areas are primary capture areas for the relocation of fish.
9. **CDFW was contacted regarding the California least tern sighting. CDFW explained that no "take" (hunt, pursue, catch, capture, or kill) of terns is allowed. CDFW recommends that avoidance is the best practice for avoiding take. As long as no activities result in direct mortality or capture, work can continue. To ensure no mortality or capture occurs, the Biologist will continue to temporarily stop work if the tern comes within 500 feet of active work areas. In the unlikely event that the tern displays nesting behaviors, CDFW will be contacted immediately.**



## **Memorandum**

*To: Rick Sun, Los Angeles County Department of Public Works*

*From: Matt Petty, CDM Smith*

*Date: June 3, 2015*

*Subject: Final Daily Biological Monitoring for the Oxford Retention Basin Multiuse Enhancement Project*

## **Introduction**

This memorandum summarizes the findings of biological monitoring on June 3, 2015. Monitoring is being conducted on a daily basis through completion of construction activities for the Oxford Retention Basin Multiuse Enhancement project. This monitoring is being conducted in compliance with the Streambed Alteration Agreement and Amendment issued by the California Department of Fish and Wildlife for the project.

## **Methods**

Biological monitoring was conducted by Matt Petty, CDM Smith biologist on June 3, 2015, beginning at 7:15 am and ending at 4:00 p.m. During the monitoring, the biologist observed herbaceous vegetation removal (i.e. "weed-whacking") activities as they were conducted in the project area. The biologist also observed the delivery of a tractor to the west parking lot (Parking Lot No. 8) and removal, by hand, of the old chain-link fence on the west bank of the Basin. Daily activities consisted of cutting herbaceous vegetation flush with the ground using gas-powered weed-whackers on the western side of the Basin, and removing tall (> 24") vegetation by shovel around the tide gates and along the south (Admiralty Way) fence. Plants along the shoreline at the toe of slope were left standing to provide a buffer. Delivery of the tractor involved unloading from the transport truck and staging next to the construction trailer within the fenced-off portion of Parking Lot No. 8.

The following sections provide the biologist's field log notes, with observations of the day's activities and wildlife presence and behavior.

## **Biologist's Field Log**

7:15 am. Biologist arrived at Oxford Basin (site) and prepared and organized field equipment for initial biological survey. Contractor crew of two already at site but is waiting on superintendent to arrive.

7:30 am. The Biologist begins the initial biological survey of the site. Two black-crowned night herons and one double-crested cormorant are perched on the tide gates, while two western gulls fly



over the western Basin. Along the western shore, two house finches forage on the bank and one Anna's hummingbird perches on the grape vines. Two barn swallows forage for insects on the wing and two ground squirrels are observed excavating burrows in the northwest corner of the site. One snowy egret forages for fish on the north shore, and the two killdeer are observed at the nest (all four eggs are untouched and unmoved). Four European starlings are observed along the north fence, and one American crow flies over the central Basin. Two mallards forage in the central Basin, and a brown pelican circles once before leaving the site and perching on the roof of the Killer Café restaurant to the southwest. At the stormwater inlet in the northeast corner of the site, two house finches, one American crow, and one black phoebe are observed. Also in the northeast corner, but along the bike path, are two house sparrows. Moving to the southeast along the bike path, four house finches, and one Hutton's vireo are observed. At the pump house, four dark-eyed juncos forage along the ground, while two immature black-crowned night herons, and two snowy egrets forage in the southeast channel. Across Admiralty Way, six rock pigeons perch on the high-rise buildings. Along the southern shore, one bushtit, one black phoebe, two American crows, and one great blue heron are observed.

8:00 am. Upon completing the initial wildlife survey, the Biologist conducts Bio-awareness Training with Contractor personnel. Emphasis is placed on the potential presence of the California least tern and the killdeer nest exclusion zone. All three Contractor personnel sign the sign-in sheet acknowledging they understand the Training. The superintendent then goes over the work plan for the day and indicates that work will include vegetation removal with handheld weed-whackers on the west bank (up to the 300-foot killdeer nest buffer), and large (> 24") remaining vegetation around the tide gates and the south fence will be removed by shovel. In addition, a tractor will be delivered and staged in Parking Lot No. 8, and the old chain-link fence along the west bank will be removed by hand. Because of the nature of the work, the Biologist emphasizes that crews should be on the lookout for brush-loving birds that had been observed that morning (e.g. black phoebe, house finch) and ground squirrels. Crews are told to stop work immediately if any wildlife come within the work area.

8:15 am. Two stingrays and hundreds of small fish are observed congregating at the tide gates. The flow through the leak is much lower than yesterday and is similar to the flow observed on June 1. Algal growth is observed on the trash racks of the tide gates. Stingrays are not observed passing in and out through the trash racks today, but they were observed passing in and out through the trash racks on June 1. An Allen's hummingbird is observed in the grape vines along the south shore, and a mourning dove is observed perched on a power line. A barn swallow chases a northern rough-winged swallow across the Basin. An immature black-crowned night heron perches in the large pine next to the tide gates, and is harassed by a black-chinned hummingbird. Both species are observed in and around the pine for the remainder of the day. The Inspector of Record arrives on site. He reminds the crews that no ground disturbance is allowed at this point.

8:30 am. Vegetation clearing with a weed-whacker begins on the west bank. No wildlife is observed in the vicinity. Even with crews milling about the tide gates, the immature black-crowned night

heron and black-chinned hummingbird remain in the nearby pine, undisturbed. A house finch flies across the Basin within 200 feet of the work area, and a single male mallard sleeps on the mudflat in the northwest corner of the site. No wildlife is disturbed throughout the vegetation clearing on the west bank.

9:00 am. Very little wildlife activity is observed; activity is composed entirely of American crow, western gull, and barn swallow flyovers. At 9:05 am, one California least tern flies in from the west over the work area. The tern circles the Basin once, catches a fish, and flies off-site to the west. The tern continues to enter the site and exhibit unaffected behavior, even when vegetation clearing is occurring on the western shore. The tractor arrives at Parking Lot No. 8.

9:15 am. Vegetation clearing with a weed-whacker ends along the west bank as a light rain, misty and unmeasurable begins to fall. According to Weather Underground, which has a weather station in Marina del Rey, trace rainfall was recorded for 6/3/15; therefore, it was less than 0.02 inch. The ground was moist in the morning, transitioning to dry ground conditions in the afternoon. Two northern rough-winged swallows circle the central Basin. One California least tern flies into the western Basin and dives for fish no more than 50 feet from the Biologist observing on the tide gates. It leaves after spending no more than 30 seconds on site with a mouth full of fish. The tractor is unloaded in Parking Lot No. 8 and is staged near the construction trailer.

9:30 am. Manual removal of tall (> 24") herbaceous vegetation begins around the tide gates. This vegetation was not removed with weed-whackers and are now being removed using shovels. No ground is disturbed, as the shovels slice plant stalks flush with the ground. The black-chinned hummingbird is still upset with the immature black-crowned night heron perched in the large pine next to the tide gates. Anna's hummingbirds had previously shown site fidelity to this tree, and no nests were found. With the black-chinned hummingbird also showing site fidelity, the tree is scoured for nests and the hummingbird observed for 15 minutes. No nest is observed.

Jackhammering originating from a non-project related source begins opposite the southwest corner of the site across Admiralty Way. The work, conducted near the Killer Café restaurant parking lot, flushes two American crows.

10:15 am. Manual removal of tall vegetation continues at the south fence along Admiralty Way. Wildlife around the Basin is observed sheltering from the consistent light rain, misty and unmeasurable. All observed birds are perched in trees or hunkered down along the Basin shoreline. Activity is largely limited to infrequent western gull and American crow flyovers. House finches also occasionally fly out of roost trees and circle the Basin before returning from where they came. At 10:21 am, one California least tern circles the central and western Basin three times. It dives five times and leaves the site over the west fence with a fish at 10:26 am.

10:45 am. An adult killdeer is observed on the killdeer nest. The Biologist carefully approaches from the west to determine at what point the adult is flushed from the nest in order to establish an

adequate nest buffer and exclusion zone. Due to the elevated northwest peninsula, the Biologist can easily come to within 50 feet of the nest before flushing the adult. Once the Biologist disappears from view back over the northwest peninsula, the adult immediately returns to the nest. The biologist returned at a distance of approximately 60 feet and observed the killdeer on its eggs for 20 minutes. At no point was the adult disturbed. Also, the fourth egg, sitting 6" from the other three, is not being brooded. The adults have abandoned this egg for an unknown reason. At 10:48 am, the California least tern circles the central and western Basin for seven minutes making several dives. It leaves the site to the southwest towards the marina without any fish.

11:15 am. A dead mourning dove is observed along the east fence. Over the last three days, no work activity or equipment was located in this area. All work on the east bank was conducted below the straw wattles, approximately 100 feet away from the dead dove. The bird had been decapitated, but no other trauma to the body was observed. Due to the state of decomposition and the location of the bird in an open, regularly travelled route (the Biologist had walked the area in the pre-work survey), and no work activity or equipment was located in this area over the last three days, the bird mortality was not caused by project activities.

A northern mockingbird is observed on the stormwater inlet fence, and four house finches and two mourning doves are observed perching on power lines. A brown pelican makes one pass over the western Basin before departing to the southwest.

11:30 am. Using binoculars and standing on the northeast peninsula, the Biologist observes as two American crows land approximately 5 feet from the killdeer nest. The second adult killdeer immediately flies in to help the other adult at the nest try and lead the crows away. The crows search the area close to the nest. One of the two crows flies away and the other follows the displaying adult killdeer to the water's edge. When the crow doubles back towards the nest, one adult flies in front of it and makes shrill alarm calls. The crow is picking up pebbles in a search for the eggs. After ten minutes, the second crow flies off and both adult killdeer sprint back to the nest. Upon close examination, the Biologist confirms all four eggs have not been touched.

11:45 am. The removal of tall herbaceous vegetation by hand stops as the crew heads to the northwest corner of the site to extend the perimeter fence around an area of contaminated soil. The work is being conducted along Washington Boulevard and no wildlife is observed in the vicinity.

12:10 pm. All staff on site break for lunch.

1:00 pm. Work begins removing the old chain-link fence from the west bank of the site. The old fence is cut away by hand with wire cutters. The only wildlife in the vicinity is a snowy egret at the tide gates and three house finches in the grape vines on the west bank, approximately 100 feet from the work area. No wildlife is disturbed. Three mallards fly in from the west and land in the eastern Basin.

1:10 pm. The Biologist attends the initial construction meeting. After introductions, the group meets at the construction trailer to observe the site and discuss next steps. Following the meeting with the larger group, CDM Smith discusses the fish relocation plan with the County and Contractor. Additionally, the Biologist discusses the presence of ground squirrels on the west bank and how that may affect the planned removal of contaminated soils. Following this discussion, the Biologist takes the Inspector of Record and County staff to view the killdeer nest. Proposed killdeer nesting buffers are discussed. The meeting ends at 3:30 pm.

3:30 pm. The Biologist checks in with Contractor field crews and they confirm they are done for the day. Together, they gather equipment and belongings and lock the site gates.

4:00 pm. All personnel leave the site for the day.

Weather conditions were mostly cloudy with light rain that was misty and unmeasurable in the morning, transitioning to mostly sunny in the afternoon with temperatures in the upper 60s and lower 70s (°F). According to Weather Underground, which has a weather station in Marina del Rey, trace rainfall was recorded for 6/3/15; therefore, it was less than 0.02 inch. The ground was moist in the morning, transitioning to dry ground conditions in the afternoon.

## Additional Observations

Throughout the day, the biologist observed several birds, as listed in Table 1. Unlike on previous days, no monarchs and very few butterflies and dragonflies in general were observed. This is likely due to the poor weather conditions for much of the day. Two California ground squirrels were observed excavating burrows in the early morning. Ground squirrels have established an extensive network of burrows, primarily on the north and west banks. Unlike yesterday, when no stingrays were observed, two stingrays were observed at the tide gates today.

It is assumed that the California least tern that has been repeatedly observed is the same individual. Over the last three days, it has displayed very consistent behavior. The tern repeatedly circles the central and western Basin, hovers, and then dives into the water to forage for fish. Based on observations over the last three days, tern visits are most likely to occur in the morning before 11:00 am, and generally last for no more than 10 minutes, with the tern exiting the site to the west. **When on site, the tern never appears disturbed by activities within the Basin. If the tern had approached work activities, all work would be stopped. Consistent with CDFW guidance from Betty Courtney on June 2, 2015 (personal communication via email to CDM Smith), "...everyone just needs to avoid the least tern so there is no direct mortality or capture, as defined by the code."**

For the first time this week, a brown pelican was observed soaring over the Basin.

Table 1 provides a list of bird species observed during biological monitoring on June 3, 2015.

<b>Table 1. Bird Species Observed during Biological Monitoring on June 3, 2015</b>		
<b>Common Name</b>	<b>Scientific Name</b>	<b>Comments</b>
Brown Pelican	<i>Pelecanus occidentalis</i>	1-2 individuals seen soaring over western Basin
Mallard	<i>Anas platyrhynchos</i>	3-4 individuals foraging along northern shore; several flyovers
Snowy Egret	<i>Egretta thula</i>	5-6 individuals resting/foraging in Basin
Great Blue Heron	<i>Ardea herodias</i>	1 individual observed on the south shore
Black-crowned Night Heron	<i>Nycticorax nycticorax</i>	5-6, including adults and juveniles, foraging and resting in Basin
Double-crested Cormorant	<i>Phalacrocorax penicillatus</i>	1 individual observed at the tide gates
Killdeer	<i>Charadrius vociferous</i>	2 individuals observed nesting along mudflats on north shore of Basin
Western Gull	<i>Larus occidentalis</i>	Very common; several flyovers of the Basin
California Least Tern	<i>Sternula antillarum browni</i>	1 individual foraging in the west Basin
Anna's Hummingbird	<i>Calypte anna</i>	2-3 individuals observed around Basin
Allen's Hummingbird	<i>Selasphorus sasin</i>	1 individual seen in the southwest corner of the Basin
Black-chinned Hummingbird	<i>Archilochus alexandri</i>	1 individual in the large pine tree near the tide gates
Black Phoebe	<i>Sayornis nigricans</i>	2-3 individuals foraging around Basin
American Crow	<i>Corvus brachyrhynchos</i>	Several observed in vegetation, on utility poles, and flying over Basin
Hutton's Vireo	<i>Vireo huttoni</i>	1 individual in the trees along the bike path
Bushtit	<i>Psaltiriparus minimus</i>	1 individual seen along the southeast shore of Basin
House Finch	<i>Haemorhous mexicanus</i>	Very common; several observed in vegetation in throughout the Basin
Song Sparrow	<i>Melospiza melodia</i>	1 individual observed along north shore of Basin
Dark-eyed Junco	<i>Junco hyemalis</i>	4 individuals observed near the pump house
Rock Pigeon	<i>Columba livia</i>	Several observed flying over Basin, particularly in western portion and around high-rises south of Admiralty Way
Mourning Dove	<i>Zenaida macroura</i>	Several observed, particularly on power lines in the northern and western portions of the basin
Northern Rough-winged Swallow	<i>Stelgidopteryx serripennis</i>	Several observed flying over Basin; most common in residential area to east of Basin
Barn Swallow	<i>Hirundo rustica</i>	Very common; several observed flying over the western Basin
Northern Mockingbird	<i>Mimus polyglottos</i>	1 individual seen along the northeastern fence
European Starling	<i>Sturnus vulgaris</i>	Several observed along Washington Blvd

## Conclusions

Biological monitoring was conducted on June 3, 2015, during vegetation removal and old fence removal activities at the site. Based on observations made during monitoring, the following conclusions were made:

1. Several bird species are present, foraging around the Basin. As the Basin transitions from a closed canopy to an open system, a larger number species that favor open, scrub habitats are being observed. The greatest songbird density is located near the bike path along the eastern fence of the site.
2. Killdeer are among the most tolerant of birds when it comes to nesting amongst human development. Killdeer have been known to nest in residential backyards, cattle pastures, and gravel rooftops. Unlike many bird species, it is extremely rare for a killdeer pair to abandon a nest. Killdeer eggs generally hatch 22-28 days after they are laid. Young killdeer hatch with their eyes open, and as soon as their downy feathers dry (generally 2-4 days), they leave the nest area and follow their parents about searching for food. Therefore, the nest buffer will likely remain in place for a maximum of 32 days.
3. To assist with the preparation of the bird nesting management plan, the Biologist wanted to acquire more site-specific observations on the tolerance of the nesting pair of killdeer. The Biologist carefully approached the killdeer nest from both directions to determine when the adult is flushed from the nest to establish adequate nest buffers and an exclusion zone. Due to the elevated northwest peninsula, the Biologist can easily come to within 50 feet of the nest from the west before flushing the adult. Once the Biologist disappears from view back over the northwest peninsula, the adult immediately returns to the nest. Therefore, a 75-foot buffer to the west of the nest should be adequate to prevent the adult from flushing due to nearby work activities. When approaching the nest from the east, the flat mudflats provide sight lines from the nest. Therefore, the adult killdeer is flushed much more easily, generally at a distance of 100 feet. Because of this, a 150-foot buffer to the east of the nest should be adequate to prevent the adult from flushing due to nearby work activities. CDM Smith will prepare the bird nesting management plan. CDM Smith will submit the Draft bird nesting management plan to CDFW, on behalf of the County, for review and approval. Until the nesting management plan is approved, a 150-foot buffer will be placed around the killdeer nest in all directions.
4. Wildlife tend to slowly move away from an area when crews approach to conduct vegetation removal and fence removal activities. They return to the area once the crews move on.
5. The deceased mourning dove that was found along the eastern fence had most likely been killed during the late morning hours. All work today was concentrated in the western Basin, and the Biologist was the only staff on site to even walk in the eastern half of the Basin. Therefore, the death was not the result of project activities.
6. Algal blooms were observed throughout the Basin.

7. Two stingrays and large numbers of fish are observed congregating at the tide gates and southeast channel gate. They appear to congregate most around the leak in the easternmost tide gate. The tide gates appear to be closed.
8. The presence of an endangered species – the California least tern – on-site requires that California Department of Fish and Wildlife and U.S. Fish and Wildlife Service be consulted. CDFW was contacted and they explained that no “take” (hunt, pursue, catch, capture, or kill) of terns is allowed. CDFW recommends that avoidance is the best practice for avoiding take. As long as no activities result in direct mortality or capture, they can continue. To ensure no mortality or capture occurs, the Biologist will continue to temporarily stop work if the tern approaches work areas. In the unlikely event that the tern displays nesting behaviors, the Biologist will stop work and CDFW will be contacted immediately.
9. The California least tern flies into the project site, makes one dive in the central Basin, catches a fish, and flies off-site to the west. This is relatively typical behavior for the tern on-site – visits generally last less than 10 minutes and consist of fishing (hovering then diving) and circling the western and central Basin. Today, the tern was on site on four separate occasions for approximately 14 minutes over a period of 1 hour and 45 minutes.
10. On one occasion when the California least tern failed to catch fish, it departed the site to the southwest toward the marina. When it catches fish, the tern is consistently observed leaving the site over the western fence and over the Hilton Garden Inn hotel. This behavior suggests that the Basin is possibly one of several foraging sites in the area for the California least tern.
11. The brown pelican, which was observed flying over the project site for the first time today, was once state and federally listed as endangered. However, due to the recovery of populations along the Pacific Coast, it was de-listed in 2009.



## **Memorandum**

*To: Rick Sun, Los Angeles County Department of Public Works*

*From: Matt Petty, CDM Smith*

*Date: June 4, 2015*

*Subject: Final Daily Biological Monitoring for the Oxford Retention Basin Multiuse Enhancement Project*

## **Introduction**

This memorandum summarizes the findings of biological monitoring on June 4, 2015. Monitoring is being conducted on a daily basis through completion of construction activities for the Oxford Retention Basin Multiuse Enhancement project. This monitoring is being conducted in compliance with the Streambed Alteration Agreement and Amendment issued by the California Department of Fish and Wildlife for the project.

## **Methods**

Biological monitoring was conducted by Matt Petty, CDM Smith biologist on June 4, 2015, beginning at 7:15 am and ending at 4:00 p.m. During the monitoring, the biologist observed herbaceous vegetation removal by hand and mechanized "scraping" activities as they were conducted in the project area. The biologist also observed the continuing removal, by hand, of the old chain-link fence on the west bank of the Basin. Daily activities consisted of removing tall (> 24") vegetation by shovel along the southeast channel and east fence, and mechanized "scraping", in which plants were removed and ground smoothed by tractor, along the east bank. Plants along the shoreline at the toe of slope were left standing to provide a buffer. Continued removal of the old chain-link fence on the west bank by hand using wire-cutters was also observed.

The following sections provide the biologist's field log notes, with observations of the day's activities and wildlife presence and behavior.

## **Biologist's Field Log**

7:15 am. Biologist arrived at Oxford Basin (site) and prepared and organized field equipment for initial biological survey. Contractor crew of two is already at the site but is waiting on superintendent to arrive.

7:25 am. The Biologist begins the initial biological survey of the site. The water level in the Basin appears significantly lower than at any point this week. There is almost no water at the stormwater inlet or in the eastern Basin. Significant algae exists in the eastern and central portions of the Basin.



There is a noticeable odor in the southeast channel near the pump house. The odor is a natural sulfuric smell (not sewage).

A great blue heron is observed along the western shoreline. Six snowy egrets, seven black-crowned night herons, and four western gulls are wading in the eastern Basin catching fish. Also present in the eastern Basin are two mallards, and three double-crested cormorants and four western gulls are observed flying over the eastern Basin. One mallard is present in the central Basin, and two barn swallows and one mourning dove fly over the central Basin. Two mourning doves are perched on power lines along the north shore, four European starlings are observed in the palm trees along Washington Boulevard. In the northeastern corner of the site, one black-crowned night heron is observed within the stormwater inlet culvert, and one bushtit and one house finch are observed foraging on the bank. Eight house finches are perched along the east fence. On the other side of the fence along the bike path, one Anna's hummingbird and one bushtit are observed in the trees. Along the southeast channel, one black-crowned night heron, one dark-eyed junco, and two snowy egrets are present. Two American crows are perched on the light poles along Admiralty Way on the other side of the south fence.

An adult killdeer is on the nest brooding its three eggs. The fourth egg is present 6" away, but is not being brooded. The Biologist approaches the nest slowly from the east, and the adult is flushed when coming within 75 feet. Both adult killdeer are present on the mudflats. The Biologist moves the western 50-foot buffer boundary tape to 75 feet – the recommended distance. Fresh raccoon tracks are observed on the mudflats close to the nest, but all four eggs are untouched.

The initial survey is completed at 8:00 am.

8:15 am. The east tide gate motor turns on for approximately two minutes and shuts off flow into the Basin. When the motor turns on, the water at the tide gates becomes turbulent and two stingrays and hundreds of small fish are observed. The Contractor (superintendent and two crew) arrives on site and positions a port-o-john near the construction trailer. Three rock pigeons fly over Parking Lot No. 8, and one black-crowned night heron flies over the tide gate and off-site to the south.

8:30 am. The Biologist conducts Bio-awareness Training with the Contractor. The superintendent and two crew sign the sign-in sheet indicating they understand and will follow BMPs and wildlife protection measures. The superintendent goes over the work for the day and indicates that scraping with a tractor will occur along the flat terraces of the east bank. However, prior to beginning, the Contractor is waiting on the go-ahead from the Inspector of Record. Three mallards are observed landing in the eastern Basin.

9:00 am. A black-chinned hummingbird is observed in the large pine next to the tide gates. It is likely the same individual observed in the same tree all day yesterday. The Biologist searches for a nest, but none is found. While awaiting direction from the Inspector of Record, the work crew

begins hand clearing tall (>24"), herbaceous vegetation along the south fence with shovels. Three house finches are approximately 100 feet away, but are unaffected by work activity.

9:30 am. The hand clearing of tall vegetation ends and the crew moves the tractor from its staging area near the construction trailer to the northeast corner of the site (access via Washington Boulevard through the stormwater inlet gate). Two mourning doves perched on the north fence fly off across the Basin, but no other wildlife appears affected. Three European starlings observe the activity from the palm trees along Washington Boulevard. The Biologist watches the adult killdeer on its nest, but the adult does not appear disturbed by the activity 400-feet away. Five house finches are observed foraging along the north bank; three mallards are sleeping on the stormwater inlet; and one barn swallow flies by; however, no wildlife is affected by work activities.

9:45 am. Scraping with the tractor begins on the northeast bank. Scraping occurs only on the flat terraces at the top of bank, not on the slopes (E&S controls – straw wattles are in place). Hand removal of tall, herbaceous vegetation also occurs along the east fence adjacent to the bike path. Three more mallards land in the eastern Basin, and one black phoebe is perched on a rock in the southeast channel. The water levels are slowly rising in the east Basin and southeast channel.

10:15 am. Scraping by tractor and hand removal of tall vegetation continues east. A northern rough-winged swallow follows approximately 50 feet behind the tractor and catches insects kicked up by the work activity. Two house finches are perched on power lines, and one American crow is perched on a power pole nearby. One Anna's hummingbird and one house sparrow are observed in residential backyard trees on the other side of the bike path. One great blue heron lands on the northeast peninsula.

11:00 am. Work continues along the eastern side of the site. One black phoebe and four house finches forage along the east shoreline. Swallows occasionally swoop over the work area, and significant American crow and European starling activity is observed along Washington Boulevard. No wildlife is disturbed by work activities. No California least tern sightings to this point. This is notable because most sightings occur before 11:00 am.

11:15 am. Western gull and American crow flyovers of the Basin are extremely frequent. A northern mockingbird flies from a power line in the northeast corner of the site to a palm tree along Washington Boulevard. A black phoebe and two house finches are observed foraging in the recently scraped area.

12:00 pm. All staff on site break for lunch.

1:00 pm. Scraping and manual vegetation removal continues along the eastern fence. The Biologist takes 15 minutes to examine the tide gates with the CDM Smith Project Manager in preparation for future fish removal.

1:30 pm. Wildlife observations on-site include three mourning doves on the south bank, a south egret at the tide gates, a great blue heron on the north shore, three mallards near the stormwater inlet, and frequent swallow and house finch fly-overs. These fly-overs tend to originate from residential areas to the east of the site, continue over the eastern Basin, and end back in the residential areas to the east. Work activities have no observed effect on wildlife.

2:00 pm. One tiger swallowtail butterfly is observed along the southeast channel. Butterfly observations have decreased over the last two days. One black phoebe and one mourning dove are also observed on the banks of the southeast channel. Four house finches are observed in trees along the bike path. A very large group of 18 western gulls is observed riding thermals and soaring in a circular pattern approximately five miles east of the site.

2:15 pm. One double-crested cormorant lands on the stormwater inlet and rests on the structure, which is already occupied by three mallards. One western gull lands in the central Basin. One great blue heron and one snowy egret are perched on the tide gates.

2:30 pm. Scraping with the tractor stops. All terraced areas at the top of the east bank have been scraped, and all vegetation has been manually removed along the eastern fence. The tractor exits the site through the pump house gate and continues down Admiralty Way before parking at the southwest gate (tide gates). No wildlife is disturbed during tractor relocation because none are observed in the vicinity.

3:00 pm. Removal of the old chain-link fence along the west bank by hand begins. Three house finches are observed in the grape vines, approximately 100 feet from the work area, but are undisturbed.

3:30 pm. The removal of the old chain-link fence stops as crews begin packing up for the day. A brown pelican is observed soaring over the western Basin.

4:00 pm. All personnel leave the site for the day.

Weather conditions were mostly cloudy all day with temperatures in the upper 60s (°F).

## **Additional Observations**

Throughout the day, the biologist observed several birds, as listed in Table 1. Unlike on previous days, no monarchs and very few butterflies and dragonflies in general were observed. This is likely due to the cloudy weather conditions for much of the day.

It is assumed that the California least tern that has been repeatedly observed is the same individual. For the first time since construction started this week, the California least tern was not observed. **If the tern had approached work activities, all work would be stopped. Consistent with CDFW guidance from Betty Courtney on June 2, 2015 (personal communication via email to CDM Smith),**

**“...everyone just needs to avoid the least tern so there is no direct mortality or capture, as defined by the code.”**

Yesterday, June 3, 2015, was the first time a brown pelican was observed within the project site, and a brown pelican was once again observed today.

Table 1 provides a list of bird species observed during biological monitoring on June 4, 2015.

<b>Table 1. Bird Species Observed during Biological Monitoring on June 4, 2015</b>		
<b>Common Name</b>	<b>Scientific Name</b>	<b>Comments</b>
Brown Pelican	<i>Pelecanus occidentalis</i>	1 individual seen soaring over western Basin
Mallard	<i>Anas platyrhynchos</i>	6-7 individuals resting/foraging throughout Basin; several flyovers
Snowy Egret	<i>Egretta thula</i>	7-8 individuals resting/foraging in Basin
Great Blue Heron	<i>Ardea herodias</i>	1 individual observed moving about the Basin
Black-crowned Night Heron	<i>Nycticorax nycticorax</i>	6-7, including adults and juveniles, foraging and resting in Basin
Double-crested Cormorant	<i>Phalacrocorax penicillatus</i>	3-4 individuals observed in the central Basin and flying over the Basin
Killdeer	<i>Charadrius vociferous</i>	2 individuals observed nesting along mudflats on north shore of Basin
Western Gull	<i>Larus occidentalis</i>	Very common; several flyovers of the Basin
Anna's Hummingbird	<i>Calypte anna</i>	2-3 individuals observed around Basin; largely along bike path
Black-chinned Hummingbird	<i>Archilochus alexandri</i>	1 individual in the large pine tree near the tide gates
Black Phoebe	<i>Sayornis nigricans</i>	2-3 individuals foraging around Basin
American Crow	<i>Corvus brachyrhynchos</i>	Several observed in vegetation, on utility poles, and flying over Basin
Bushtit	<i>Psaltiriparus minimus</i>	2-3 individuals seen in the eastern Basin
House Finch	<i>Haemorhous mexicanus</i>	Very common; several observed in vegetation in throughout the Basin
House Sparrow	<i>Passer domesticus</i>	1 individual observed along north shore of Basin
Dark-eyed Junco	<i>Junco hyemalis</i>	4 individuals observed near the pump house
Rock Pigeon	<i>Columba livia</i>	Several observed flying over Basin, particularly in western portion and around high-rises south of Admiralty Way
Mourning Dove	<i>Zenaida macroura</i>	Several observed, particularly on power lines in the northern and western portions of the basin
Northern Rough-winged Swallow	<i>Stelgidopteryx serripennis</i>	Several observed flying over Basin; most common in residential area to east of Basin
Barn Swallow	<i>Hirundo rustica</i>	4-5 individuals observed flying over the western Basin
Northern Mockingbird	<i>Mimus polyglottos</i>	1 individual seen along the northeastern fence
European Starling	<i>Sturnus vulgaris</i>	Several observed along Washington Blvd

## Conclusions

Biological monitoring was conducted on June 4, 2015, during vegetation removal, mechanical scraping, and old fence removal activities at the site. Based on observations made during monitoring, the following conclusions were made:

1. Several bird species are present, foraging around the Basin. As the Basin transitions from a closed canopy to an open system, a larger number species that favor open, scrub habitats are being observed. The greatest songbird density is located near the bike path along the eastern fence of the site.
2. Killdeer are among the most tolerant of birds when it comes to nesting amongst human development. Killdeer have been known to nest in residential backyards, cattle pastures, and gravel rooftops. Unlike many bird species, it is extremely rare for a killdeer pair to abandon a nest. Killdeer eggs generally hatch 22-28 days after they are laid. Young killdeer hatch with their eyes open, and as soon as their downy feathers dry (generally 2-4 days), they leave the nest area and follow their parents about searching for food. Therefore, the nest buffer will likely remain in place for a maximum of 32 days.
3. To assist with the preparation of the bird nesting management plan, the Biologist has determined that a 75-foot buffer to the west of the nest should be adequate to prevent the adult from flushing due to nearby work activities. When approaching the nest from the east, the flat mudflats provide sight lines from the nest. Therefore, the adult killdeer is flushed much more easily, generally at a distance of 100 feet. Because of this, a 150-foot buffer to the east of the nest should be adequate to prevent the adult from flushing due to nearby work activities. CDM Smith will prepare the bird nesting management plan. CDM Smith will submit the Draft bird nesting management plan to CDFW, on behalf of the County, for review and approval. To this point, and until the nesting management plan is approved, a 300-foot buffer has been placed around the killdeer nest in all directions. No activity has been allowed within 300 feet of the buffer the entire week.
4. Wildlife tend to slowly move away from an area when crews approach to conduct vegetation removal and fence removal activities. They return to the area once the crews move on.
5. Algal blooms were once again observed throughout the Basin. On sunny days, the amount of algae covering the Basin increases. On cloudy days like today, algae is still significant but is not as extensive.
6. A noticeable odor was recorded around the southeast channel near the pump house. The extremely low water levels exposed mucky channel substrate and algal mats, which could explain the natural, sulfuric odor. The odor did not smell like sewage.
7. Low water levels in the morning resulted in a congregation of more than 20 wading birds, including herons and egrets. This observation is important to consider in anticipation of the fish

relocation and draining of the Basin. Relocation efforts need to occur as soon as water levels drop or else birds will easily be able to pick off the fish.

8. Two stingrays and large numbers of fish are observed congregating at the tide gates. They appear to congregate most around the leak in the easternmost tide gate. Today, the gate motor came on for the first time and closed the gates.
9. The presence of an endangered species – the California least tern – on-site requires that California Department of Fish and Wildlife and U.S. Fish and Wildlife Service be consulted. CDFW was contacted and they explained that no “take” (hunt, pursue, catch, capture, or kill) of terns is allowed. CDFW recommends that avoidance is the best practice for avoiding take. As long as no activities result in direct mortality or capture, they can continue. To ensure no mortality or capture occurs, the Biologist will continue to temporarily stop work if the tern approaches work areas. In the unlikely event that the tern displays nesting behaviors, the Biologist will stop work and CDFW will be contacted immediately.
10. For the first time since construction started, the California least tern was not observed at the project site. On one occasion when the California least tern failed to catch fish, it departed the site to the southwest toward the marina. When it catches fish, the tern is consistently observed leaving the site over the western fence and over the Hilton Garden Inn hotel. This behavior suggests that the Basin is possibly one of several foraging sites in the area for the California least tern.
11. The brown pelican, which was observed flying over the project site for the second time today, was once state and federally listed as endangered. However, due to the recovery of populations along the Pacific Coast, it was de-listed in 2009.



## **Memorandum**

*To: Rick Sun, Los Angeles County Department of Public Works*

*From: Matt Petty, CDM Smith*

*Date: June 5, 2015*

*Subject: Final Daily Biological Monitoring for the Oxford Retention Basin Multiuse Enhancement Project*

## **Introduction**

This memorandum summarizes the findings of biological monitoring on June 5, 2015. Monitoring is being conducted on a daily basis through completion of construction activities for the Oxford Retention Basin Multiuse Enhancement project. This monitoring is being conducted in compliance with the Streambed Alteration Agreement and Amendment issued by the California Department of Fish and Wildlife for the project.

## **Methods**

Biological monitoring was conducted by Matt Petty, CDM Smith biologist on June 5, 2015, beginning at 7:15 am and ending at 4:00 p.m. During the monitoring, the biologist observed herbaceous vegetation removal by hand as it was conducted in the project area. The biologist also observed the continuing removal, by hand, of the old chain-link fence on the west bank of the Basin. Daily activities consisted of removing tall (> 24") vegetation by shovel along the southeast channel and south fence. Plants along the shoreline at the toe of slope were left standing to provide a buffer. Continued removal of the old chain-link fence on the west bank by hand using wire-cutters was also observed.

The following sections provide the biologist's field log notes, with observations of the day's activities and wildlife presence and behavior.

## **Biologist's Field Log**

7:15 am. Biologist arrived at Oxford Basin (site) and prepared and organized field equipment for initial biological survey. Contractor crew of three, including the superintendent, is already at the construction trailer, along with the diver.

7:30 am. The Biologist conducts Bio-awareness Training with the Contractor crew and the diver. The Contractor crew and diver sign the sign-in sheet indicating they understand and will follow BMPs and wildlife protection measures. In addition to the Training for activities and wildlife within the Basin site, the Training includes discussing health and safety measures and avoidance of aquatic species and their habitats with the diver. The superintendent goes over the work for the day and

indicates that vegetation removal by hand will continue along the southeast channel and the old chain-link fence will be removed along the west bank. The diver will be cleaning the tide gates on the marina side of barnacles, sediment, and other debris so that the plugs can be properly fit.

8:00 am. The superintendent and the diver head over to the marina side of the tide gates to begin work. The Biologist begins the initial biological survey of the site. The water level in the Basin appears low, similar to the very low levels observed the day before. There is almost no water at the stormwater inlet or in the eastern Basin. Significant algae exists in the eastern and central portions of the Basin. The odor that was detected yesterday in the southeast channel is no longer noticeable.

One house sparrow, three American crows, and one barn swallow are observed along the western shore. Two western gulls and three mallards fly over the western Basin. Seven additional mallards are foraging or resting in the western Basin, and one great egret fishes in the central Basin. Two American crows are observed on the south shore, and two rock pigeons fly over the central Basin. An additional two American crows and six house finches forage along the southeast channel. While fewer wading birds are observed fishing in the shallow waters compared to the day prior, four snowy egrets and three black-crowned night herons are present in the eastern Basin. Two black phoebes and one northern mockingbird are observed along the east fence. In the trees along the bike path, two Anna's hummingbirds and four house finches are observed. Three northern rough-winged swallows fly amongst the residences to the east of the bike path. In the northeast corner of the site, two dark-eyed juncos and one mourning dove forage in areas cleared the day prior.

As the Biologist approaches the killdeer nest from the east, one European starling flies along the north fence. At the nest, an adult killdeer is on the nest brooding its three eggs. The fourth egg is present 6" away, but is not being brooded. The Biologist approaches the nest slowly from the east, and the adult is flushed when coming within 100 feet. The killdeer are becoming more acclimated to the Biologist's presence as the adult does not display and returns to the nest with the Biologist observing from 20 feet. The Biologist continues to restrict activities within 300 feet of the nest and prohibits activities within 150 feet.

8:30 am. The manual removal of the old chain-link fence on the western bank continues. The superintendent approaches the Biologist and requests the ability to remove the fence in its entirety by hand. The remaining portion ends in the northwest corner of the site, approximately 275 feet from the killdeer nest. Because, coming from the west, the killdeer do not flush until activity comes within 60 feet and the presence of the elevated northwest peninsula to obstruct the view of work from the nest, the Biologist allows the removal of the fence in its entirety. The Biologist keeps a watchful eye on the nest through binoculars as the work is completed. The adult does not flush off the nest, and it appears relaxed as it broods the eggs. Work would have been stopped if activities disturbed the nesting killdeer.

Three house finches forage in sea lavender approximately 100 feet from the work area, and three barn swallows fly above the western Basin foraging for insects. One double-crested cormorant



lands near the tide gates and begins fishing. Both it, and a snowy egret at the tide gates, are very successful catching fish. No wildlife is disturbed by fence removal activities on the western bank.

9:00 am. Significant house finch, mourning dove, European starling, and rock pigeon activity is observed in the palms alongside Washington Boulevard (off-site). A western gull flies over the Basin as a snowy egret stalks the north shoreline, approximately 150 feet from the active work area. One Anna's hummingbird and one black-chinned hummingbird perch on the north fence. They chase one another, with the black-chinned hummingbird returning to the fence after driving the Anna's hummingbird across Washington Boulevard. The great egret continues to forage in the central Basin, but most other wading birds have left the site. Swallow flyovers are witnessed frequently, with both barn and northern rough-winged species present.

9:20 am. The cutting of the old fence in the northwest corner of the site ends. The old fencing is rolled up and piled in front of the construction trailer along the west bank. Hauling old fence continues until 9:35 am. The member of the killdeer pair not on the nest forages along the south bank. A double-crested cormorant and three mallards fly off-site to the west. Remodeling work, unrelated to the project, in the high-rises across Admiralty Way begins and flushes three rock pigeons out over the Basin.

9:45 am. A black-crowned night heron flies over the western Basin, as the killdeer foraging on the south shore rejoins its mate at the nest. Wildlife activity is largely limited to house finches in the grape vines on the west bank and European starlings along the north fence. One Allen's hummingbird feeds on sea lavender flowers along the west bank.

10:00 am. An unidentified, but uniformed, man enters the site and checks the tide gates. He enters the tide gate house and leaves the site after 5 minutes. All work on the site stops as all work associated with the old chain-link fence on the west bank is completed.

10:10 am. The Biologist speaks with SWCA Environmental regarding future fish relocation. The Biologist describes site conditions, fish species present, and equipment needs. The two sides discuss the fish relocation plan and the call ends at 10:30 am. A double-crested cormorant lands in the western Basin.

10:30 am. The superintendent and diver arrive back at the construction trailer. Contractor crews put up green privacy screen on the staging area perimeter fence along Washington Boulevard (outside the site). The Inspector of Record arrives, and he, the superintendent, the diver, and the Biologist discuss the fish relocation plan.

10:45 am. The diver leaves the site. The Biologist informs the superintendent that there is a bee hive located behind the construction trailer in an irrigation cover.

11:00 am. The crew begins hand removal of tall (>24") vegetation along the southeast channel with shovels. Los Angeles DWP (Water & Power) arrives and spray paints the location of their utilities so that they can be avoided during construction. Per SWCA's request, the Biologist identifies fish at the tide gates (largely topmelt and gobies) and the southeast channel (largely mosquitofish). Two American crows rest and four house finches forage at the southeast channel on the bank opposite the vegetation clearing. Three mourning doves and one European starling are observing on the south bank. One snowy egret, three mallards, and one double-crested cormorant rest near the stormwater inlet.

11:40 am. One monarch and one tiger swallowtail butterfly fly along the southeast channel. Six cabbage white butterflies are also observed around the eastern Basin. Very little wildlife activity is observed as vegetation removal continues. Two American crows are observed along the east bank and an Anna's hummingbird flies around the pump house.

1:30 pm. Crews continue to remove tall vegetation by hand along the southeast channel. A large school of topmelt is present at the 81" tide gate; it stretches 20 feet from the trash grate into the western Basin. Five mallard are observed swimming in the central Basin. One American crow and two mourning doves rest along the south shore. Two snowy egrets forage around the stormwater inlet, and three house finches and one black phoebe are observed near the pump house.

2:10 pm. The Inspector of Record arrives in the work area. He observes the vegetation clearing for five minutes before walking the site perimeter outside of the perimeter fence. No wildlife activity is observed near the work area.

2:30 pm. Vegetation clearing activities along the southeast channel stop for the day. One Anna's hummingbird and one American crow fly over the southeast channel. One house finch is observed foraging along the southeast channel, on the bank opposite vegetation clearing. The Biologist moves the orange tapes marking the killdeer nest, so that there are two sets: one set at 300-feet and another at the recommended distances of 75-feet (west) and 150-feet (east). Two house sparrows are observed foraging along the north bank.

2:45 pm. Crews begin pruning the grape vines along the western fence with hand clippers. The superintendent explains that the 10 individual grape plants will be saved for replanting on-site following construction. One monarch butterfly is observed flying near the tide gates. One black-crowned night heron lands at the tide gates, and one black-chinned hummingbird is observed in the large pine next to the tide gates. One mourning dove is perched on the western fence approximately 200 feet from the work area, and one snowy egret fishes along the northwest mudflats approximately 100 feet from the work area. No wildlife is disturbed by work activities.

3:30 pm. Pruning of the grape vines stops as crews begin packing up for the day. One stingray is observed swimming along the southwest shoreline.

4:00 pm. All personnel leave the site for the day.

Weather conditions were mostly cloudy in the morning and mostly sunny in the afternoon with temperatures in the upper 60s (°F).

## Additional Observations

Throughout the day, the biologist observed several birds, as listed in Table 1. A great egret was observed for the first time this week at the site. Great egrets were observed often during biomonitoring in January, but many migrate north for the summer.

Two monarchs and quite a few butterflies and dragonflies were observed as the clouds parted in the late morning and afternoon. The previous two days had very little butterfly and dragonfly activity. This is likely due to cloudy weather conditions on those days.

It is assumed that the California least tern that has been repeatedly observed is the same individual. For the second day since construction started (and the second day in a row), the California least tern was not observed. **If the tern had approached work activities, all work would be stopped. Consistent with CDFW guidance from Betty Courtney on June 2, 2015 (personal communication via email to CDM Smith), "...everyone just needs to avoid the least tern so there is no direct mortality or capture, as defined by the code."**

Unlike the previous two days, a brown pelican was not observed flying over the project site today.

The potential and inactive bird nests identified during the pre-construction bird nesting survey on May 31, 2015, are checked daily during the initial site survey. Thus far, no activity has been observed at any of the potential or inactive nests.

Table 1 provides a list of bird species observed during biological monitoring on June 5, 2015.

Table 1. Bird Species Observed during Biological Monitoring on June 5, 2015		
Common Name	Scientific Name	Comments
Mallard	<i>Anas platyrhynchos</i>	7-8 individuals resting/foraging throughout Basin; several flyovers
Snowy Egret	<i>Egretta thula</i>	6-7 individuals resting/foraging in Basin
Great Egret	<i>Ardea alba</i>	1 individual observed foraging in the Basin
Black-crowned Night Heron	<i>Nycticorax nycticorax</i>	4-5, including adults and juveniles, foraging and resting in Basin
Double-crested Cormorant	<i>Phalacrocorax penicillatus</i>	2-3 individuals observed in the central Basin and flying over the Basin
Killdeer	<i>Charadrius vociferous</i>	2 individuals observed nesting along mudflats on north shore of Basin
Western Gull	<i>Larus occidentalis</i>	Very common; several flyovers of the Basin
Anna's Hummingbird	<i>Calypte anna</i>	2-3 individuals observed around Basin; largely along the east and north fences

Black-chinned Hummingbird	<i>Archilochus alexandri</i>	2 individuals; one on north fence and one in the large pine tree near the tide gates
Allen's Hummingbird	<i>Selasphorus sasin</i>	1 individual foraging along the west bank
Black Phoebe	<i>Sayornis nigricans</i>	2-3 individuals foraging around Basin
American Crow	<i>Corvus brachyrhynchos</i>	Several observed in vegetation, on utility poles, and flying over Basin
House Finch	<i>Haemorhous mexicanus</i>	Very common; several observed in vegetation in throughout the Basin
House Sparrow	<i>Passer domesticus</i>	2-3 individuals observed; primarily along north shore of Basin
Dark-eyed Junco	<i>Junco hyemalis</i>	2 individuals observed in the northeast corner of the Basin
Rock Pigeon	<i>Columba livia</i>	Several observed flying over Basin, particularly in western portion and around high-rises south of Admiralty Way
Mourning Dove	<i>Zenaida macroura</i>	Several observed, particularly on power lines in the northern and western portions of the basin
Northern Rough-winged Swallow	<i>Stelgidopteryx serripennis</i>	Several observed flying over Basin; most common in residential area to east of Basin
Barn Swallow	<i>Hirundo rustica</i>	Several observed flying over the western Basin
Northern Mockingbird	<i>Mimus polyglottos</i>	1 individual seen along the east fence
European Starling	<i>Sturnus vulgaris</i>	Several observed, primarily along Washington Blvd

## Conclusions

Biological monitoring was conducted on June 5, 2015, during vegetation removal and old fence removal activities at the site. Based on observations made during monitoring, the following conclusions were made:

1. Several bird species are present, foraging around the Basin. As the Basin transitions from a closed canopy to an open system, a larger number species that favor open, scrub habitats are being observed. The greatest songbird density is located near the bike path along the eastern fence of the site.
2. Killdeer are among the most tolerant of birds when it comes to nesting amongst human development. Killdeer have been known to nest in residential backyards, cattle pastures, and gravel rooftops. Unlike many bird species, it is extremely rare for a killdeer pair to abandon a nest. Killdeer eggs generally hatch 22-28 days after they are laid. Young killdeer hatch with their eyes open, and as soon as their downy feathers dry (generally 2-4 days), they leave the nest area and follow their parents about searching for food. Therefore, the nest buffer will likely remain in place for a maximum of 32 days.
3. To assist with the preparation of the bird nesting management plan, the Biologist has determined that a 75-foot buffer to the west of the nest should be adequate to prevent the adult from flushing due to nearby work activities. When approaching the nest from the east, the flat

mudflats provide sight lines from the nest. Therefore, the adult killdeer is flushed much more easily, generally at a distance of 100 feet. Because of this, a 150-foot buffer to the east of the nest should be adequate to prevent the adult from flushing due to nearby work activities. CDM Smith will prepare the bird nesting management plan. CDM Smith will submit the Draft bird nesting management plan to CDFW, on behalf of the County, for review and approval. To this point, and until the nesting management plan is approved, a 300-foot buffer has been placed around the killdeer nest in all directions. While no activity had been allowed within 300 feet of the buffer the entire week, a portion of the old fence on the west bank approximately 275-feet from the killdeer nest was allowed to be removed by hand today under the careful watch of the Biologist. The Contractor has been advised that absolutely no work will occur within 150 feet from the killdeer nest.

4. Wildlife tend to slowly move away from an area when crews approach to conduct vegetation removal and fence removal activities. They return to the area once the crews move on.
5. Algal blooms were once again observed throughout the Basin. On sunny days, the amount of algae covering the Basin increases. On cloudy days, algae is still significant but is not as extensive.
6. Low water levels in the morning resulted in a congregation of more than 10 wading birds, including herons and egrets. This observation is important to consider in anticipation of the fish relocation and draining of the Basin. Relocation efforts need to occur as soon as water levels drop or else birds will easily be able to pick off the fish.
7. One stingray and large numbers of fish are observed congregating at the tide gates. Fish at the tide gate were observed to be largely topsmelt and gobies. They appear to congregate most around the leak in the easternmost tide gate. Mosquitofish are common within the southeast channel.
8. The presence of an endangered species – the California least tern – on-site requires that California Department of Fish and Wildlife and U.S. Fish and Wildlife Service be consulted. CDFW was contacted and they explained that no “take” (hunt, pursue, catch, capture, or kill) of terns is allowed. CDFW recommends that avoidance is the best practice for avoiding take. As long as no activities result in direct mortality or capture, they can continue. To ensure no mortality or capture occurs, the Biologist will continue to temporarily stop work if the tern approaches work areas. In the unlikely event that the tern displays nesting behaviors, the Biologist will stop work and CDFW will be contacted immediately.
9. For the second straight day, the California least tern was not observed at the project site. It is likely that the Basin is one of several foraging sites in the area for the California least tern.